



US 20170213393A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2017/0213393 A1**
(43) **Pub. Date:** **Jul. 27, 2017**(54) **METHOD FOR REPRESENTING POINTS OF INTEREST IN A VIEW OF A REAL ENVIRONMENT ON A MOBILE DEVICE AND MOBILE DEVICE THEREFOR**(52) **U.S. Cl.**
CPC *G06T 19/006* (2013.01); *G01C 21/3638* (2013.01); *G06F 3/011* (2013.01); *H04L 29/06034* (2013.01); *G01C 21/3611* (2013.01); *G01C 21/3679* (2013.01); *G06T 15/20* (2013.01)(71) Applicant: **Apple Inc.**, Cupertino, CA (US)(72) Inventors: **Anton Fedosov**, Munich (DE); **Stefan Misslinger**, San Jose, CA (US); **Peter Meier**, Los Gatos, CA (US)(21) Appl. No.: **15/480,142**(22) Filed: **Apr. 5, 2017****Related U.S. Application Data**

(63) Continuation of application No. 15/024,800, filed on Mar. 24, 2016, now Pat. No. 9,646,422, filed as application No. PCT/EP2013/069844 on Sep. 24, 2013.

Publication Classification(51) **Int. Cl.**
G06T 19/00 (2006.01)
G06T 15/20 (2006.01)
H04L 29/06 (2006.01)
G01C 21/36 (2006.01)
G06F 3/01 (2006.01)(57) **ABSTRACT**

There is disclosed a method and mobile device for displaying points of interest in a view of a real environment displayed on a screen of the mobile device with a functionality for interaction with a user, which comprises the steps of: capturing an image of the real environment or a part of the real environment using a camera, determining at least one point of interest related to the real environment, determining an image position of the at least one point of interest in the image, displaying at least part of the image on at least part of the screen, overlaying a computer-generated indicator with the at least part of the image on the screen at a screen position according to the image position of the at least one point of interest, displaying a computer-generated virtual object related to the at least one point of interest on the screen at a screen position determined according to the screen position of the computer-generated indicator and which is adjacent to a bottom edge of the screen, displaying a visually perceivable relation indication indicative of a relation between the computer-generated virtual object and the computer-generated indicator. The mobile device may perform an action related to the at least one point of interest if at least part of the computer-generated virtual object displayed on the screen is touched.

